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**Gabriel**

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(54) **TARGET SIMULATION SYSTEM**

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(57) **ABSTRACT**

A target simulation system is used to simulate a target, such as a submarine, for testing of homing projectiles, such as anti-submarine warfare (ASW) torpedoes. The target simulation system includes a target portion having an impact structure and a plurality of acoustic reflectors spaced at a distance that simulates the spatial extent and acoustic highlights of the desired target. The target simulation portion is suspended at a predetermined depth within an underwater environment using one or more suspension assemblies. The suspension assemblies include one or more support floats that float on the surface of the water and suspension lines that extend from the respective support floats to the target portion. A reflector sail is coupled to a support float at one end of the target simulation system and captures the surface wind to apply a force to the target simulation portion. A drogue is coupled to the target simulation portion at an opposite end of the target simulation system and applies a drag force in an opposite direction to arrange the reflectors in a line.

**15 Claims, 1 Drawing Sheet**

